IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO

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OHIO A. PHILIP RANDOLPH
INSTITUTE, *et al.*

      Plaintiffs,

v.

LARRY HOUSEHOLDER, Speaker of the
Ohio House of Representatives, *et al.*

      Defendants.
_____

No. 1:18-cv-00357-TSB-KNM-MHW

Judge Timothy S. Black
Judge Karen Nelson Moore
Judge Michael H. Watson
Magistrate Judge Karen L. Litkovitz

PLAINTIFFS' REBUTTAL PROPOSED FINDINGS OF FACT

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I. FACTUAL EVIDENCE

A. National Republicans' Involvement Continued Throughout the H.B. 369 Map Drawing Process.

1. Adam Kincaid created district-specific analyses of Ohio's congressional districts for each of the 12 Republican congressional districts after H.B. 319 was enacted. Trial Ex. P602-613; *see also* Kincaid Dep. Vol. II, ECF No. 230-28 at 529:5-23, 533:11-17, 539:17-542:24, 543:8-11.

2. Kincaid met with Republican members of Congress and reviewed these district-specific analyses between the enactment of H.B. 319 and H.B. 369. *Id.* at 544:6-11, 544:16-21, 544:23-545:2.

3. Kincaid met in-person with at least five of the Intervenors in 2011 to discuss how redistricting would affect the contours of their districts. Kincaid Dep., ECF No. 230-27 at 93:18-94:2 (testifying that he met with Representative Chabot more than once concerning the contours of the Representative's district); *id.* at 95:2-9, 95:16-17 (testifying that he met with Representative Gibbs concerning the same); *id.* at 91:16-92:5, 92:13-16 (testifying that he met with Representative Turner concerning the same); *id.* at 92:17-21, 93:5-12 (testifying that he met with Representative Stivers concerning the same); *id.* at 104:4-8 (testifying he met with Representative Johnson concerning the same).

4. Kincaid's post-H.B. 319 district-specific analyses included election data results for Republican congressional districts, including PVI scorings and the same selection of statewide elections Kincaid used to score iterations of H.B. 319 before it was passed. Kincaid Dep. Vol. II, ECF No. 230-28 at 530:12-24; *see, e.g.*, Trial Ex. P602 (Kincaid district-specific analysis).

5.   Kincaid posted the spreadsheets on the NRCC server for NRCC staff to access. Kincaid Dep. Vol. II, ECF No. 230-28 at 528:24-529:4, 529:12-23, 536:24-25, 543:8-9. Republican members of Congress could request them from any member of NRCC staff. *Id.* at 538:21-22, 539:8-9.

6.   Kincaid did not testify that he did not work on any draft maps after the passage of H.B. 319, as set forth in Defendants' and Intervenors' Proposed Findings of Fact ("DIFOF"), ECF No. 253 ¶ 164. Rather, he testified that it is his recollection that he did not work on H.B. 369 as "intensely" as he did on H.B. 319. He further conceded that "just because I don't remember it doesn't mean it didn't happen." *Id.* at 547:7-548:10.

7.   On December 15, 2011, at 9:26 a.m., Heather Mann emailed Tom Whatman and Kincaid, "Attached are the zipped shape files and equivalency file for HB 369 as Passed by the House." Trial Ex. P409. Kincaid then forwarded Mann's email to Tom Hofeller and Mike Wild, noting, "They made a couple tweaks. Final, final Ohio map is attached." *Id*.

B. Ohio's Congressional Representatives

8.   Representative Kaptur would have been happy to represent Republican-leaning counties. Kaptur, ECF No. 249 at 79:8-21. She testified that in the past she had represented Fulton County and Wood County. *Id.* She would have preferred to represent neighboring counties rather than Cuyahoga County, where she did not have contacts. *Id.* at 74:24-76:12, 79:8-21.

9.   Representative Joyce Beatty was not an incumbent congresswoman in 2011, when the new 3rd District was drawn. Fudge, ECF No. 239 at 86:2-7. There was no incumbent congressperson in the newly created 3rd District. *Id.*

10.   The splitting of the city of Cincinnati under the challenged plan cannot be explained by incumbency protection. At the time of the redistricting, there was only one

incumbent in Hamilton County, Steve Chabot. Trial Ex. J16. Congresswoman Jean Schmidt

lived in Claremont County and represented the 2nd District at the time of redistricting. *See id.*;

DiRossi, ECF No. 243 at 184:6-9. There was no suggestion that she was not going to run for re-

election at the time of redistricting, as illustrated by the map drawers implementing her

preferences under both H.B. 319 and H.B. 369. DiRossi, ECF No. 243 at 184:9-13; *see infra*

¶ 13.

C. Features of Congressional Districting Plans

11.   There are more split counties in Northeast Ohio under the challenged plan than

there were under the 2002 Plan, even though there are fewer districts. *Compare* Trial Ex. P093

at 4, fig.2 (seven counties split—two across more than two districts—in North-Northeast Ohio

under the 2002 Plan: Lucas, Lorain, Medina, Cuyahoga (4), Summit (3), Portage, Trumbull),

with Trial Ex. P090 at 12, fig.5; P454 at Ex. D-1 (nine counties split—four across more than two

districts—in North-Northeast Ohio under the 2012 Plan: Lucas, Ottawa, Erie, Lorain (3),

Medina, Cuyahoga (4), Summit (4), Portage (3), Trumbull).

12.   The entirety of Warren County was included in the 1st District under both H.B.

319 and H.B. 369. *Compare* Trial Ex. D2 (H.B. 319 map), *with* D1 (H.B. 369 map); *see also*

Trial Ex. P544-45 (H.B. 319 as enacted); Trial Ex. P045-61 (H.B. 369 as enacted).

13.   The entirety of the municipality of Loveland was included in the 2nd District

under both H.B. 319 and H.B. 369. Trial Ex. P544-45 (H.B. 319 as enacted); Trial Ex. P045-61

(H.B. 369 as enacted).

14.   Under H.B. 319, the 3rd District in Franklin County was heavily Democratic. *See*

Trial Ex. P545 (District 3 under H.B. 319 scored 29.53% for Republican vote for President);

Trial Ex. P134 (Unified Index and 08 McCain Index scorings for District 3); Trial Ex. P333

(D+16 PVI scoring for District 3); Trial Ex. P385 (talking points sent to Lenzo by Mann on

September 13, 2011, noting the "*new* Democrat district in Franklin County") (emphasis in original).

15.   Under H.B. 319, Franklin County was projected to be represented by both Democratic and Republican congressional representatives. Trial Ex. P545 (map of H.B. 319 districts including political index scoring); Trial Ex. P333 (D+16 PVI scoring for District 3, R+10 for District 12, R+7 for District 15).

16.   Under H.B. 319, the 3rd District did not have an incumbent, contained the OSU campus, and had a BVAP nearing 30%. Trial Ex. P544-45 (H.B. 319 as enacted).

17.   Under H.B. 319, the NASA Glenn Research Center was included in the 9th District. Trial Ex. P544-45 (H.B. 319 as enacted). The NASA Glenn Research Center is across the street from Cleveland Hopkins International Airport, and the lines surrounding this portion of the 9th District do not change between H.B. 319 and H.B. 369. *Compare* Trial Ex. D2 (H.B. 319 map), *with* D1 (H.B. 369 map); *see also* Trial Ex. P544-45 (H.B. 319 as enacted); Trial Ex. P045-61 (H.B. 369 as enacted).

18.   Under H.B. 319, the 11th District had the same composition as it did under H.B. 369, DiRossi, ECF No. 243 at 195:6-14, with a BVAP over 50%, extending down into Summit County, which was split four ways under H.B. 319 as well. Trial Ex. P544-45 (H.B. 319 as enacted); *see also* Trial Ex. P454 at 24, 38 (maps of the same District 11 as under H.B. 319, as it was unchanged between the plans); *id.* at 26 (population summary report for the same District 11 as under H.B. 319, as it was unchanged between the plans).

19.   Senator Faber's request regarding the splitting of Mercer County was implemented in H.B. 319. Trial Ex. P124 (email showing implementation of Sen. Faber's

request in September 2011, prior to introduction of H.B. 319); DiRossi, ECF No. 243 at 235:15-240:2.

20.   Whatman's request to place the Timken Headquarters into the 16th District was implemented in H.B. 319. Trial Ex. P128 (email showing Whatman request to place Timken Headquarters in 16th District, implemented by Kincaid, in September 2011, prior to introduction of H.B. 319); DiRossi, ECF No. 243 at 263:10-269:6.

21.   The district borders in Hamilton County and Franklin County under the Proposed Remedial Plan are more regular than the district borders in Hamilton County and Franklin County under the challenged plan. *Compare* Trial Ex. P454, Cooper App'x at 28-29 (districts in Hamilton County in challenged plan), *with id.* at 49-50 (districts in Hamilton County in Proposed Remedial Plan); *compare id.* at 30, 39, 42 (districts in Franklin County in challenged plan), *with id.* at 51, 60 (districts in Franklin County in Proposed Remedial Plan). At the same time, under the Proposed Remedial Plan, there are ten municipalities split in Hamilton and Franklin Counties, and under the challenged plan, there are twenty municipalities split in Hamilton and Franklin Counties, including two across three districts. *See* Trial Ex. P454, Cooper App'x at 67 (Ex. F). Contrary to Defendants' and Intervenors' assertions, DIFOF ¶¶ 376, 1053, preserving municipalities does not explain the irregular district lines in Hamilton and Franklin Counties.

D. Election Results

22.   The following Democrats have won statewide elections in Ohio since 2012: In 2012, Barack Obama, as the presidential candidate, won the state of Ohio with 50.67% of the vote. Trial Ex. J17 (November 6, 2012 General Election Results). In 2012, Sherrod Brown, as the senatorial candidate, won the state of Ohio with 50.70% of the vote. *Id.* In 2018, Sherrod Brown, as the senatorial candidate, won the state of Ohio with 53.41% of the vote. Trial Ex. J21 (November 6, 2018 General Election Results).

E. Plaintiffs

<u>Douglas Burks</u>

23.   The e-mail that Plaintiff Burks received from Representative Wenstrup stating that his "thoughts were important," Burks, ECF No. 239 at 248:8-14, and that "I look forward to our continued correspondence throughout the 114th session of Congress," *id*. at 248:22-25, was sent from the email address: Wenstrup-no-reply@mail.house.gov, *id*. at 256:22-24.

<u>Hamilton County Young Democrats</u>

24.   Nathaniel Simon testified to the injuries experienced by Hamilton County Young Democrats based on his and the organization's personal experience with the challenged plan. Simon, ECF No. 240 at 67:24-68:21, 69:2-73:11, 75:22-76:17, 77:12-17, 77:22-78:2, 78:6-23. He did not claim it was a comparative injury, rather one based on present experience. *Id.* As Mr. Simon was in high school before 2012, he was not involved with Hamilton County Young Democrats at that time. *Id.* at 76:22-25.

25.   Representative Chabot agrees that the bill he introduced did not target access to guns. Chabot Dep., ECF No. 230-9 at 129:10-14.

26.   Representative Chabot could only recall a single Republican co-sponsor of his introduced legislation, and not any Democratic co-sponsors. Chabot Dep., ECF No. 230-9 at 127:3-22. The only bill Representative Chabot introduced in the 115th Congress that provided grants for the hiring of school resource officers and the placing of metal detectors in schools, H.R. 5139, had a single Republican co-sponsor.[1]

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[1] The Court can take judicial notice of this fact as it "can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned." Fed. R. Evid. 201(b)(2). *See* Representative Steve Chabot, Congress.gov, https://www.congress.gov/member/steve-chabot/C000266?q=%7B%22congress%22%3A%22115%22%2C%22sponsorship%22%3A%22sponsored%22%7D (last visited March 31, 2019).

II. EXPERT EVIDENCE

A. Dr. Christopher Warshaw

27.   Dr. Warshaw used congressional elections as the basis for his analysis. In some instances, congressional elections are uncontested, meaning "one of the major parties didn't field a candidate." Warshaw, ECF No. 240 at 198:16-19. For these races, he "imputed the results in those elections using the same statistical model that [he] used in the rest of my main report." Warshaw, ECF No. 241 at 17:14-15. "[T]he best methodological practice to impute the uncontested races, particularly when you're looking at observational results." *Id.* at 82:8-10.

28.   In practice, both in legislative races and other statewide races, voters are well sorted by party and ideology, so generally vote for the same party for all offices. "Indeed, the data indicate that the correlation between the efficiency gap estimates based on congressional elections and presidential elections is approximately 0.8 for elections held after 2000 and 0.9 for elections held after the 2011 redistricting cycle." Trial Ex. P571 at 6-7 n.5, *see also* Warshaw, ECF No. 241 at 132:12-133:5.

29.   While the five partisan gerrymandering metrics are highly correlated, there are instances in which the metrics point in different directions. Warshaw, ECF No. 240 at 246:19-248:7. Instances in which partisan gerrymandering metrics point in different directions include: Alabama in 1972, Alabama in 1992, Alabama in 1996, Alabama in 2010, California in 2006, California in 2008, Kentucky in 1982, Indiana in 2002, and New Jersey in 2012. *Id.* These instances would not be considered to be partisan gerrymanders under Dr. Warshaw's test. *Id.*

30.   The dramatic increase in partisan bias numbers for Ohio from 2010 to 2012, along with Dr. Warshaw's analysis on one-party control effect on the efficiency gap number, lead Dr. Warshaw to conclude that partisan gerrymandering and not neutral factors were responsible for Ohio's extreme partisan bias numbers. Warshaw, ECF No. 241 at 64:13-23 (testifying that "on

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page 17 in Figure 3 [of P571] which we talked about -- or I talked about earlier in my direct

testimony -- we can see that partisan control through districting process accounts for a large --

the bulk of the variation in changes in -- in the efficiency gap and other metrics between 2010

and '12. And Ohio itself shifted 12 points in a pro-Republican direction right when the new map

kicked in, and that was true across the different metrics. So from that I conclude that, certainly

in Ohio, partisan control of the redistricting process had quite a large effect on all the metrics that

I look at.").

31.   Dr. Warshaw used the version of the efficiency gap measure that controls for

voter turnout variations between districts. Warshaw, ECF No. 241 at 84:25-86:10. The turnout

adjusted version of the efficiency gap is an updated formulation of the efficiency gap. *Id.* It was

debuted by Professor McGhee in the Election Law Journal, one of the top political science

journals, in 2017, along with a mathematical proof to prove that it adjusts for turnout. *Id.*

32.   The counterfactual asymmetry metric for Ohio was illustrated by Dr. Warshaw in

chart. The chart showed the following:

Dem. Vote Share	Dem. Seat Share	Rep. Vote Share	Rep. Seat Share
45%	25%	55%	75%
46%	25%	54%	75%
47%	25%	53%	75%
48%	25%	52%	75%
49%	25%	51%	75%
50%	25%	50%	75%
51%	25%	49%	75%
52%	31%	48%	69%
53%	37.5%	47%	62.5%
54%	37.5%	46%	62.5%
55%	37.5%	45%	62.5%
Mean Seat Share	29%		71%
Bias	21%		21%

Trial Ex. P571 at 11. This chart illustrates how the asymmetry metric, along with the other

metrics, are partisan fairness metrics and not proportionality metrics.

33. Dr. Warshaw also drew a responsiveness curve for Ohio for 2012 and 2018 election results. The 2018 responsiveness curve is below:
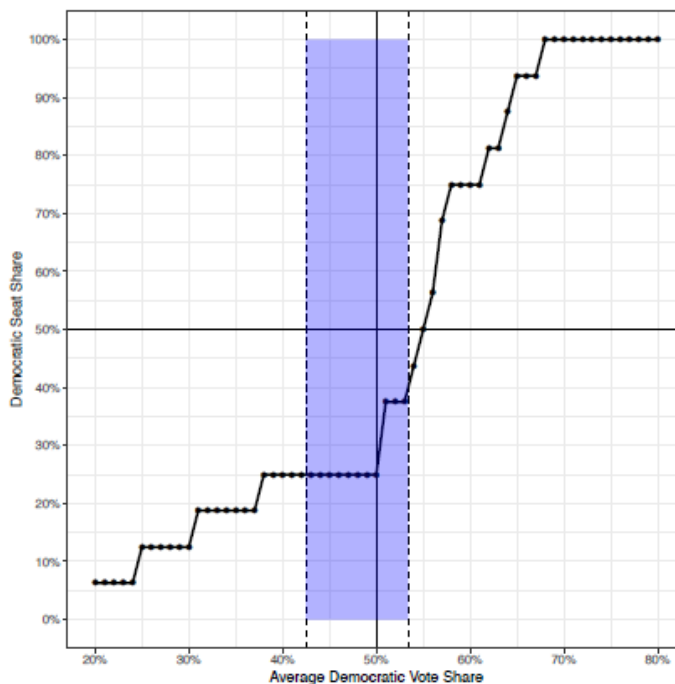
Trial Ex. P476 at 12. Dr. Warshaw testified that the curve shows "a large bias against Democrats . . . even if Democrats had gotten 55 -- it would have taken 55 percent of the vote in 2018 for Democrats to win half the seats. And if Democrats had gotten 51 percent of the vote, they still would have received far less than half the seats." Warshaw, ECF No. 241 at 102:21-103:4.

B. Dr. Wendy K. Tam Cho

34. Dr. Cho disclosed in her expert report all operative parameters on the non-partisan redistricting criteria employed in her code. Trial Ex. P087, Cho Initial Report at 8-10. Dr. Cho also disclosed, in a letter sent through counsel, all incidental parameters employed in her code, including all weights employed. Trial Ex. I005 at 2.

35. The letter disclosing all incidental parameters, Trial Ex. I005, combined with the code, allows a reviewer of Dr. Cho's algorithm to know exactly what Dr. Cho inputted in her command line when she ran her code in this case. Cho, ECF No. 243 at 62:16-63:5.

36. While Dr. Cho's algorithm implemented no explicit requirement to create a minority influence district in the Franklin County area, an influence district is often produced in her simulations. Cho, ECF No. 243 at 22:18-21, 23:2-21.

37. Dr. Cho explained in her initial report in this case, Trial Ex. P087 at 11, why she did not use congressional elections to determine the partisanship of her simulated maps. She used statewide elections instead in order to remove district-specific factors such as candidate-specific effects, differences from campaign spending and varying incumbency advantages, from her estimation of underlying partisanship. *Id.* This enables "greater comparability across the state as a whole." *Id.* Defendants' expert Dr. Hood similarly used statewide elections, and not congressional elections, to estimate partisanship and noted the reasons for doing so. Trial Ex. D004, Hood Report at 11 & n.15. Intervenors' expert Dr. Brunell also noted the advantages of using statewide elections for this purpose, noting that it "removes across district variance for many factors: incumbency advantage, quality of candidates, differences in fundraising, etc." Trial Ex. I060, Brunell Report at 12.

38. In Dr. Cho's rebuttal report, she presented evidence tending to disprove that Ohio has become increasingly Republican. Trial Ex. P088, Cho Rebuttal Report at 6-8. She presented the following figure, which indicates that partisan trajectory in Ohio from 2002 to 2018 appear to be volatile and not monotonically increasing:

10
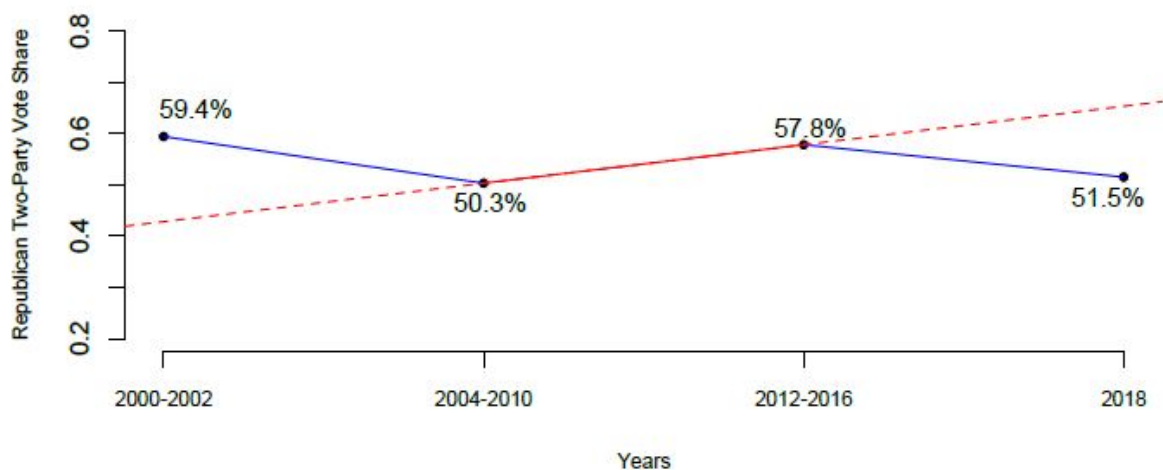
Id. at 7.

39.   In her rebuttal report, Dr. Cho also indicated that there was "quite a large shift in partisan support across the set of 2018 congressional elections" as compared to the 2016 elections. *Id.* at 8. As the following figure shows, "Democrat support rose across the state, sometimes quite dramatically:"
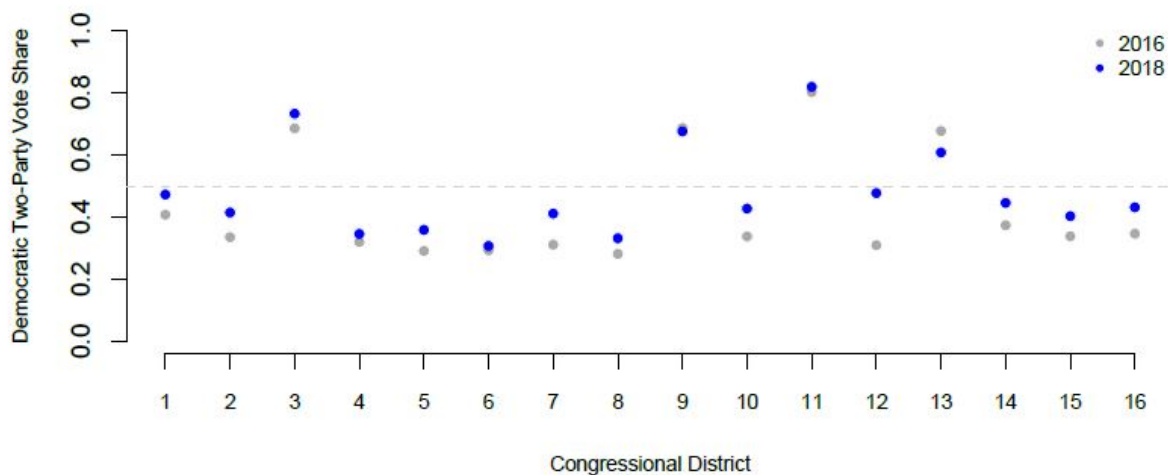
Id.

40.   Dr. Cho constructed her districts at the precinct level. Cho, ECF No. 242 at 163:23-164:7. Dr. Cho constructed her districts at the precinct level because voting data is

available at that level. *Id*. In order to equalize population to zero, districts must be drawn at the census block level. *Id*. at 164:8-15. Dr. Brunell has criticized experts in the past for conducting analysis at the census block level. Brunell, ECF No. 247 at 107:18-108:10.

C. Dr. Lisa Handley

41. In Dr. Handley's expert report, she calculated the percentage of vote the Black-preferred candidate would have received under four conditions in 10 elections pre-dating the 2011 redistricting. Handley, ECF No. 240 at 157:11-14. She calculated the same for 11 elections post-dating the 2011 redistricting. *Id*.

42. Based on the estimates provided by Dr. Handley, in the 2008 Democratic Primary, a district with 45% BVAP would have resulted in President Obama, the minority-preferred candidate, winning with 64.9% of the vote. Trial Ex. P254, Handley Report at 17, Table 11 (row for 2008 US President). Even at 40% BVAP, President Obama would have won with 62.2% of the vote. *Id*.

43. In the Euclid cases involving litigation over the city council and school board elections, Handley, ECF No. 240 at 152:10-15, Dr. Handley analyzed only endogenous elections: the elections for the offices in question, *id*. at 152:16-20. Those elections were local, non-partisan, and off-cycle elections held at different times from federal elections. *Id*. at 153:5-12. In those elections, White turnout was three to four times greater than Black turnout, White voters rarely voted for the Black-preferred candidate and a Black or Black-preferred candidate never actually won a city council or school board election. *Id*. at 153:13-19. The situation was therefore markedly different from the elections that Dr. Handley analyzed in this case, which are statewide, partisan, and on-cycle elections in which Black and White voters turn out at comparable rates, and Black voters have consistently been able to elect their candidate of choice.

Id. at 153:20-154:1. As a result, Dr. Handley's analyses in the Euclid cases did not bear on her conclusions in this case. *Id.* at 153:5-7.

44.   As Tables 10 and 11 in Dr. Handley's expert report demonstrate, there is no "statistical tie" between a district of 45% and 50% BVAP. Trial Ex. P254, Handley Report at 16, Table 10; *id.* at 17, Table 11. The estimates based on those two scenarios are demonstrably distinct. *Id.* Dr. Handley never testified to even the possibility that the scenarios might be a "statistical tie," nor has any of Defendants' or Intervenors' experts suggested that they might be so.

45.   Dr. Handley's opinions and her analyses aid the Court in assessing the intent behind the drawing of Congressional District 11.

46.   The academic article Dr. Handley co-authored with Dr. Brunell entitled "Has the Voting Rights Act Outlived Its Usefulness? In a Word, 'No.,'" collected information on congressional and state legislative districts nationally of the minority composition of those districts and the race or ethnicity of the representatives who were elected to represent them in 1992 and 2007. Handley, ECF No. 240 at 154:7-19. The paper was not focused on a particular jurisdiction, but rather, was a national survey. *Id.* at 154:24-25. The purpose of the paper was not to advise any jurisdiction in redistricting after the 2010 Census of any Black VAP the districts must have. *Id.* at 155:5-8. And the findings in the paper were not to be relied upon in redistricting as it is important when redistricting to comply with the VRA to conduct a jurisdiction-specific, functional analysis in each case. *Id.* at 155:9-19. Indeed, the authors made clear in the article itself that a jurisdiction-specific, functional analysis should always be conducted. *Id.* at 178:1-13.

D. Dr. David Niven

47.   Defendants' "map of the 9th congressional district from the U.S. Census Bureau," DIFOF ¶ 830, was not fine-grained enough to show distinctions such as to whether or not Vermillion Township is located entirely within the 9th District. Niven, ECF No. 242 at 94:18-19, 95:5-9.

48.   Political science literature makes clear that when congressional districts split towns or neighborhoods, it produces confusion and makes it less likely that constituents will know who their member of Congress is and will contact that member. *Id.* at 96:15-20.

49.   Although Dr. Niven has not calculated the minimum number of census tracts that could have been split under the 2011 Plan, based on other states and other examples, the number would be less than 20. *Id.* at 105:6-9.

50.   In Ohio's urban counties, the number of census tracts that were split increased regardless of whether the population grew as it did in Franklin County or the population fell as it did in Hamilton County. *Id*. at 116:10-16.

E. Dr. Thomas Brunell

51.   Incumbency protection is not a legally required redistricting criterion. Brunell, ECF No. 247 at 100:1-2. Core retention is not a legally required redistricting criterion. *Id.* at 100:3-4. Dr. Brunell did not include "core retention" as one of the subheadings in his book chapter on traditional redistricting criteria. *Id*. at 103:11-104:15.

52.   Dr. Brunell opined that in order to compare maps one must meet one-person-one-vote. He went on to opine that since Dr. Cho's maps were only equalized down to one percent and not down to zero: "so we're not comparing the right things. Right? And so, for instance, if I measured my IQ and the IQ of 3 million chickens -- right? -- I might be an outlier compared to these chickens, but that doesn't make me a smart person." Brunell, ECF No. 246 at 196:10-13.

53.   Dr. Brunell used Tufte's responsiveness data to determine that Ohio's map was historically responsive. Brunell, ECF No. 247 at 109:9-12. The large portion of Tufte's data by date range includes dates that predate *Baker v. Carr* in 1962, which established one-person-one-vote:

Table 1. Sample of Responsiveness Rates in Several Countries and US States.

Country or State, years	Responsiveness (Tufte calls it Swing Ratio)
Great Britain, 1945-1970	2.83
New Zealand, 1946-1969	2.27
US, 1868-1970	2.39
US, 1900-1970	2.09
US, 1948-1970	1.93
Michigan	2.06
New Jersey, 1926-1947	2.10
New Jersey, 1947-1969	3.65
New York, 1934-1966	1.28

*From Table 1, pg. 543 in Tufte 1973.

Trial Ex. I060, Brunell Report at 9.

54.   Dr. Brunell does not consider any of his areas of expertise to be computer science. Brunell, ECF No. 247 at 96:18-20. Dr. Brunell does not consider any of his areas of expertise to be operations research. *Id.* at 96:15-17.

55.   Dr. Brunell cannot program in, nor is he "versed" in C++ code, the code that Dr. Cho uses for her algorithm. *Id.* at 97:6-9, 96:25-97:5. Dr. Brunell does not know the difference between C and C++. *Id.* at 97:3-5. Dr. Brunell couldn't "tell from C++ code what [Dr. Cho has] done with maps." *Id.* at 97:15.

56.   Dr. Brunell has never written an algorithm to generate a set of hypothetical congressional districts. *Id.* at 97:23-25. Dr. Brunell has never run any outlier analysis for "redistricting cases." *Id*. at 98:9-13.

57.   Dr. Brunell wonders, although he does not know, whether Dr. Cho's maps might

be simply "4 maps 'with variations on different themes.'" DIFOF ¶ 980; *see generally id.*

¶¶ 975-81. The results from Dr. Cho's analysis refute Dr. Brunell's speculation. Across a large

variety of different metrics, Dr. Cho's maps present a wide range of different values. For

instance, the responsiveness of Dr. Cho's simulated maps, displayed in Plaintiffs' Proposed

Findings of Fact ("PFOF") ¶ 809, ECF No. 251-1, span a wide range of values. The same is true

of biasedness. *Id.* ¶ 811. And the Plaintiff-specific analysis that Dr. Cho conducted also

indicates a wide range of estimated Democratic vote shares, suggesting that the maps are not

mere "variations on different themes." *See generally id.* ¶¶ 784, 785, 317, 330, 343, 359, 368,

381, 414, 427, 455, 474, 486, 498, 522, 541, 552, 564, 580. Moreover, that Dr. Cho's maps vary

is evident from the fact that the distributions produced do not have identical shapes. *Compare*,

e.g., *id.* ¶ 359, *with id.* ¶ 414.

58.   Dr. Brunell has testified as an expert witness in Voting Rights Act cases. Brunell,

ECF No. 247 at 86:25-87:2. As part of his testimony in the past, he had conducted racially

polarized voting analysis. *Id.* at 87:3-5. Dr. Brunell did not conduct any racially polarized

voting analysis, also known as racial bloc voting analysis, for this case. *Id.* at 88:2-4.

59.   Dr. Handley conducted a racially polarized voting analysis in this case. *Id.*

at 87:22-88:1. Dr. Brunell reviewed Dr. Handley's underlying data. *Id.* at 90:13-91:13. He

further testified: "For current District 11, Dr. Handley's advice of 45 percent is correct[.]" *Id.* at

95:5-8.

60.   Dr. Brunell has never had to draw a VRA district as part of simulation. *Id.*

at 105:17-19. Dr. Brunell critiqued Dr. Cho's use of Dr. Handley's 45% BVAP to run her

simulations. Brunell, ECF No. 247 at 20:6-21:10. At trial, he suggested that Dr. Cho could

freeze the VRA district. Brunell, ECF No. 247 at 105:20-106:5. In the Michigan partisan gerrymandering case, Dr. Brunell criticized Dr. Chen for freezing VRA districts. *Id.* at 106:6-10.

61.   Dr. Brunell's criticism that a district-specific, functional analysis needs to be conducted on every single one of Dr. Cho's VRA districts and Mr. Cooper's Proposed Remedial District 11 is without merit. *See* DIFOF ¶¶ 996-1023. Dr. Cho's VRA districts are drawn in the same area in which Dr. Handley conducted her district-specific, functional analysis. Dr. Handley's racial polarized voting analysis considered the BVAP needed for minority voters to have the opportunity to elect their candidates of choice in the Cleveland area. Trial Ex. P254, Handley Report; *see also* Brunell, ECF No. 247 at 83:10-18. The VRA districts in Dr. Cho's simulated maps are in the Cleveland area; when developing the algorithm for this case, Dr. Cho checked to ensure that the district with 45% or higher BVAP was in the Cleveland area. Cho, ECF No. 242 at 159:19-24. And in order to draw a district in that area with above 45% BVAP, the district must include all the parts of the Cleveland area where there is any significant African-American population. Cho, ECF No. 243 at 79:19-81:4.

62.   Dr. Brunell never established a social-scientific or legal basis for his opinion that every single one of Dr. Cho's maps, drawn in the same area in which Dr. Handley conducted her district-specific, functional analysis, need to have performed upon it another district-specific, functional analysis. Mr. Cooper testified that in the context of Voting Rights Act litigation, after a racially polarized voting analysis is presented at the merits phase, he has never encountered a scenario in which a district-specific, functional analysis is performed again on the illustrative or remedial maps drawn. Cooper, ECF No. 249 at 135:5-11.

63.   In any event, due to the state's demographics, it is impossible to draw a district with over 45% BVAP anywhere else in the state of Ohio apart from in the Cleveland area. Cooper, ECF No. 249 at 60:6-14.

64.   Proposed Remedial District 11 contains the entirety of the city of Cleveland, and municipalities immediately to its east, such as Cleveland Heights, East Cleveland, Euclid, Highland Hills, North Randall, Richmond Heights, Shaker Heights, South Euclid, University Heights, and Warrensville Heights, among others. Trial Ex. P454, Cooper App'x at 59 (map of Proposed Remedial District 11); *id.* at 67 (Ex. F, indicating Cleveland is not split).

65.   As part of Dr. Brunell's testimony, counsel showed him a map of the municipalities in Cuyahoga County highlighted for the 2016 Presidential results, but devoid of any demographic data, Brunell, ECF No. 247 at 28:17-30:12, in support of his assertion that it was unknowable if Dr. Cho's simulated VRA-compliant districts included only these "Trump" municipalities or included them to a degree that it would alter the BVAP identified as necessary, *id.* at 31:11-25.[2] However, it is known that Dr. Cho's simulated VRA-compliant districts each had a BVAP over 45% and is in the Cleveland area. A sufficient number of the municipalities identified by Dr. Brunell could not have been included in Dr. Cho's simulated maps, as, if so, the district could not have reached 45% BVAP. *See infra* ¶¶ 66–98. Among other things, the 2010 Census reports demographic data by municipality.[3]

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[2] In only 3 of the 19 voting tabulation districts in Cleveland Ward 12 did President Trump win over 40% of the total presidential vote, *see* Brunell, ECF No. 247:19-21 (explaining that the pink highlighting in the I-132 demonstrative means "Trump won about between 40 and 50 percent of the vote in those jurisdictions"); in only 4 of the 17 voting tabulation districts in Cleveland Ward 13 did President Trump win over 40% of the total presidential vote; in none of the 17 and 19 voting tabulation districts in Cleveland Wards 16 and 17, respectively, did President Trump win over 40% of the total presidential vote. Trial Ex. J19. In none of the voting tabulation districts in all of Cleveland did President Trump have over 50% of the total presidential vote. *Id.*

[3] Plaintiffs continue to assert their objections to Dr. Brunell's undisclosed opinion as laid out in their Objections Brief and accompanying spreadsheet, but to the extent the Court does not exclude the

66.   Intervenors' exhibit and Dr. Brunell's testimony on I-132 is not a substitute for

racially polarized voting analysis of Cuyahoga County. Dr. Brunell did not know the racial

breakdown of the municipalities and wards in I-132. *Id.* at 88:5-15. Dr. Brunell did not know

the population breakdown of the municipalities and wards in I-132. *Id.* at 89:21-90:9. Dr.

Brunell could not conduct a "jurisdiction-specific functional analysis on the fly in the

courtroom." *Id.* at 130:8-11.

67.   According to the 2010 Census, Bay Village, Ohio, in Cuyahoga County has 55

Black people of voting age, out of 11,672 people of voting age, for a BVAP of 0.47%.[4]

68.   According to the 2010 Census, Bentleyville, Ohio, in Cuyahoga County has 4

Black people of voting age out of 611 people of voting age, for a BVAP of 0.65%.

69.   According to the 2010 Census, Berea, Ohio, in Cuyahoga County has 981 Black

people of voting age out of 15,608 people of voting age, for a BVAP of 6.29%.

70.   According to the 2010 Census, Brecksville, Ohio, in Cuyahoga County has 201

Black people of voting age out of 10,538 people of voting age, for a BVAP of 1.91%.

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testimony of Dr. Brunell and related exhibits, Plaintiffs request that the Court take judicial notice of this
Census data, which are indicated in ¶¶ 66-98 in this document, pursuant to Fed. R. Evid. 201(b)(2).
Census data is properly the subject of judicial notice because it "can be accurately and readily determined
from sources whose accuracy cannot reasonably be questioned." Fed. R. Evid. 201(b)(2); *see also
Livingston Christian Sch. v. Genoa Charter Twp.*, 858 F.3d 996, 1011 (6th Cir. 2017), *cert. denied*, 138 S.
Ct. 1696, 200 L. Ed. 2d 952 (2018) (taking judicial notice of "geographic maps" provided on the U.S.
Census Bureau's website); *United States v. Neal*, 577 F. App'x 434, 452 (6th Cir. 2014) (noting "courts
may take judicial notice of government statistics such as United States census data"); *Jaimes v. Toledo
Metro. Hous. Auth.*, 758 F.2d 1086, 1090 (6th Cir. 1985) (taking "judicial notice that the 1980 census did
depict some change in [the] statistical data"). Further, courts can take judicial notice "at any stage of the
proceeding." Fed. R. Evid. 201(d).

[4] The demographic data reported in ¶¶ 66–98 herein is contained in the table "P10: Race for the Population
18 Years and Over," from the 2010 decennial census at the Place and County Subdivision level in
Cuyahoga County, and can be accessed from the U.S. Census Bureau's American Fact Finder website,
https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml, through the advanced search function. P10
is the same table from the 2010 Census that Intervenors' counsel sought judicial notice of with respect to
the 11th District. DIFOF ¶ 1021.

71.   According to the 2010 Census, Broadview Heights, Ohio, in Cuyahoga County has 271 Black people of voting age out of 14,623 people of voting age, for a BVAP of 1.85%.

72.   According to the 2010 Census, Brook Park, Ohio, in Cuyahoga County has 429 Black people of voting age out of 15,174 people of voting age, for a BVAP of 2.83%.

73.   According to the 2010 Census, Brooklyn Heights, Ohio, in Cuyahoga County has 13 Black people of voting age out of 1,177 people of voting age, for a BVAP of 1.10%.

74.   According to the 2010 Census, Brooklyn, Ohio, in Cuyahoga County has 445 Black people of voting age out of 9,040 people of voting age, for a BVAP of 4.92%.

75.   According to the 2010 Census, Chagrin Falls Township, Ohio, in Cuyahoga County has 14 Black people of voting age out of 3,219 people of voting age, for a BVAP of 0.43%.

76.   According to the 2010 Census, Chagrin Falls, Ohio in Cuyahoga County has 14 Black people of voting age out of 3,134 people of voting age, for a BVAP of 0.45%.

77.   According to the 2010 Census, Cuyahoga Heights, Ohio, in Cuyahoga County has 4 Black people of voting age out of 473 people of voting age, for a BVAP of 0.85%.

78.   According to the 2010 Census, Fairview Park, Ohio, in Cuyahoga County has 228 Black people of voting age out of 13,270 people of voting age, for a BVAP of 1.72%.

79.   According to the 2010 Census, Gates Mills, Ohio, in Cuyahoga County has 25 Black people of voting age out of 1,856 people of voting age, for a BVAP of 1.35%.

80.   According to the 2010 Census, Highland Heights, Ohio, in Cuyahoga County has 116 Black people of voting age out of 6,529 people of voting age, for a BVAP of 1.78%.

81.   According to the 2010 Census, Hunting Valley, Ohio, in Cuyahoga County has one (1) Black person of voting age out of 448 people of voting age, for a BVAP of 0.22%.

82. According to the 2010 Census, Independence, Ohio, in Cuyahoga County has 23 Black people of voting age out of 5,496 people of voting age, for a BVAP of 0.42%.

83. According to the 2010 Census, Mayfield, Ohio, in Cuyahoga County has 62 Black people of voting age out of 2,793 people of voting age, for a BVAP of 2.22%.

84. According to the 2010 Census, Middleburg Heights, Ohio, in Cuyahoga County has 204 Black people of voting age out of 13,153 people of voting age, for a BVAP of 1.55%.

85. According to the 2010 Census, Newburgh Heights, Ohio, in Cuyahoga County has 196 Black people of voting age out of 1,629 people of voting age, for a BVAP of 12.03%.

86. According to the 2010 Census, North Olmsted, Ohio, in Cuyahoga County has 479 Black people of voting age out of 25,959 people of voting age, for a BVAP of 1.85%.

87. According to the 2010 Census, North Royalton, Ohio, in Cuyahoga County has 275 Black people of voting age out of 24,321 people of voting age, for a BVAP of 1.13%.

88. According to the 2010 Census, Olmsted Falls, Ohio, in Cuyahoga County has 126 Black people of voting age out of 6,815 people of voting age, for a BVAP of 1.85%.

89. According to the 2010 Census, Olmsted Township, Ohio, in Cuyahoga County has 160 Black people of voting age out of 10,218 people of voting age, for a BVAP of 1.57%.

90. According to the 2010 Census, Parma Heights, Ohio, in Cuyahoga County has 436 Black people of voting age out of 16,797 people of voting age, for a BVAP of 2.60%.

91. According to the 2010 Census, Parma, Ohio, in Cuyahoga County has 1282 Black people of voting age out of 64,916 people of voting age, for a BVAP of 1.97%.

92. According to the 2010 Census, Rocky River, Ohio, in Cuyahoga County has 148 Black people of voting age out of 15,814 people of voting age, for a BVAP of 0.94%.

93.   According to the 2010 Census, Seven Hills, Ohio, in Cuyahoga County has 70 Black people of voting age out of 9,885 people of voting age, for a BVAP of 0.71%.

94.   According to the 2010 Census, Strongsville, Ohio, in Cuyahoga County has 638 Black people of voting age out of 34,345 people of voting age, for a BVAP of 1.86%.

95.   According to the 2010 Census, Valley View, Ohio, in Cuyahoga County has 3 Black people of voting age out of 1,603 people of voting age, for a BVAP of 0.19%.

96.   According to the 2010 Census, Walton Hills, Ohio, in Cuyahoga County has 158 Black people of voting age out of 2,025 people of voting age, for a BVAP of 7.80%.

97.   According to the 2010 Census, Westlake, Ohio, in Cuyahoga County has 394 Black people of voting age out of 25,683 people of voting age, for a BVAP of 1.53%.

98.   As these demographics further bear out, it is not possible to draw a congressional district in Ohio with a BVAP over 45% if it does not include the majority of Cleveland and the municipalities immediately to its east, Cooper, ECF No. 249 at 59:20-61:3, such as Bedford, Bedford Heights, Cleveland Heights, East Cleveland, Euclid, Garfield Heights, Highland Hills, Maple Heights, North Randall, Richmond Heights, Shaker Heights, South Euclid, University Heights, or Warrensville Heights.

99.   Dr. Brunell critiqued Dr. Warshaw for his use of congressional data instead of statewide data. Brunell, ECF No. 247 at 114:18-20. In the Michigan partisan gerrymandering case, Dr. Brunell critiqued Dr. Jowei Chen for using statewide and not congressional data. *Id.* at 117:7-19 ("Statewide elections ultimately do not, in fact, elect any legislators.").

100.   Dr. Brunell has written bias analysis in the past. *Id.* at 113:23-25. Dr. Brunell has also conducted partisan bias analysis in the past. *Id.* at 114:21-25. Dr. Brunell did not conduct any partisan bias analysis for this case. *Id.* at 187:14-16.

101.   Dr. Brunell considers preservation of communities of interest a traditional redistricting criterion. *Id.* at 77:5-7. Dr. Brunell has testified in the past that keeping counties in tact is one way to protect communities of interest. *Id.* at 77:15-19.

102.   Dr. Brunell did not list the number of municipal splits in his report. *Id*. at 78:25-79:1. Dr. Brunell did not list the number of county splits in his report. *Id.* at 79:6-8.

103.   Dr. Brunell did not know whether the number of splits of Ohio's counties were necessary: He did not know whether it was necessary to split Cuyahoga county four ways. *Id.* at 80:7-11. Dr. Brunell did not know whether it was necessary to split Summit County four ways. *Id.* at 80:12-15. He did not know whether it was necessary to split Lorain County three ways. *Id.* at 80:16-18. He did not know whether it was necessary to split Franklin County three ways. *Id.* at 80:19-21.

104.   At trial, Dr. Brunell could not recall whether Plaintiffs' Proposed Remedial Plan adhered to traditional redistricting criteria. *Id.* at 81:25-82:3. Dr. Brunell could not recall whether Mr. Cooper had drawn more than one map. *Id.* at 80:10-11. Dr. Brunell could not recall whether Mr. Cooper drew a map that pairs the same number of 2010 incumbents as the enacted map. *Id.* at 82:10-11.